



Patent
Attorney File No. 612,406-022
[formerly Docket No. 271/145]

#22
New
4/14/03

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

MICULKA et al.

Serial No. 09/509,051

Filed: June 8, 2000

For: ADDRESSABLE MODULAR
RECOGNITION SYSTEM, ITS
PRODUCTION AND USE

Group Art Unit: 1641

Examiner: K. Padmanabhan

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
Washington, D.C. 20231

Sir:

Pursuant to 37 C.F.R. §1.56 and in accordance with 37 C.F.R. §§1.97–1.98, information relating to the above-identified application is hereby disclosed. The accompanying Form PTO-1449 provides a listing of documents that may be relevant to the subject application.

It is requested that the Examiner fully consider the art cited in the accompanying Form 1449, initial the left-most column of the form adjacent each cited reference, and return a copy for Applicants' records. It is further requested that the art be cited on the cover of any patent issuing from the subject application.

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CERTIFICATE OF MAILING UNDER 37 CFR 1.8

I hereby certify that this document (along with any referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as First Class Mail in an envelope addressed to the Commissioner for Patents, Washington, D.C., 20231.

Date: March 26, 2003

Sent by: Cynthia B. Pacheco

Signature: Cynthia B. Pacheco

In accordance with §1.97(c), this Information Disclosure Statement is being filed after the period set forth in §1.97(b) above, but before the mailing date of either a Final Action under §1.113 or a Notice of Allowance under §1.311. Accordingly, the fee of \$180.00 as set forth in §1.17(p) is attached.

Copies of each of the references listed on the attached Form PTO-1449 are enclosed herewith.

References AJ, AK, AL, AM, AN, AO, and BJ are in a language other than the English language. A concise explanation of relevance is given below.

Reference AJ -- DE 19516179 -- equivalent of WO 96/35121 (in English)

Reference AK -- DE 4216696 C2 - Claimed is (A) a sensitive method for immunoassays or assays based on complementary interaction by (a) quick and repetitive measurements of electric current or fluorescence, and (b) double measurements either in at least two measuring zones or by internal calibration of the system using stable redox or IR-fluorescence-labelled analytes followed by comparison of the two measurements obt'd. Also claimed is an appts. for performing (A) wherein the analytes recognising complementary mols. (antibodies (ABs), receptors, DNA-fragments) are immobilised at special surfaces. USE/ADVANTAGE - The new method is used in the detection of binding pairs such as in immunoassays. This method is simpler, faster, more correct, cheaper and more sensitive than known methods such as ELISAs RIAs or EIAs.

Reference AL -- DE 19741716 – equivalent of WO 99/15893

The invention concerns a recognition system comprising (a) at least an immobilized binding constituent A and at least a binding site for the recognizing species B and (b) at least a recognizing species B capable of being fixed on the constituent A and at least a binding site for a substrate S, the binding of constituent A on the recognition species B intervening in the form of a molecular pairing system.

Reference AM -- DE 19703718 - Dendrimers (I) having specific receptors and/or ligands (II) bound to their surfaces are new.

Reference AN -- DE 19612356 - Process for detection of nucleic acids by means of hybridisation with a complementary nucleic acid probe through a ligand chemically bonded to the nucleic acid or the nucleic acid probe, is new. The process is characterised in that one of the hybridisation partners is bound to a solid support. Substances that bind with high affinity to a macromolecular binder are selected as ligands, and the binder is chemically coupled to detection beads that are optically detectable.

Reference AO -- DE 3513168 - This invention introduces a new class of devices for detecting the presence of biological molecules. The construction principle of the device involves the direct introduction of small monomers of macromolecules into the surface layer of a semiconductor, for example by doping at the gate-area of a field effect transistor (or any other similar suitable electronic device, also on carbon basis). There are a few biological monomers which pair

specifically enough for a selective measurement, such as nucleotides (or portions thereof, e.g. adenine, thymine, guanine, cytosine and uracil). This invention leads to substantial improvement of biosensors, as there should be: Better signal to noise ratio, and options for: reading of nucleotide sequences, better process control, and new synthesis possibilities (e.g. modified Merrifield Synthesis). The invention also offers the potential to construct cybernetic systems and true biochips.

Reference AX -- EP 0655136 -- related to USP 5,849,480

Reference AY -- JP 03151900 -- English translation enclosed

Reference AZ -- JP 07174760 -- English translation enclosed

Reference BJ -- WO 98/40740 - Providing an assay method capable of simultaneously determining the presence or absence of one or more species of biological substances or assaying the amounts thereof with a single assay device, a kit therefor and an assay device thereof. The amount thereof or the presence thereof is detected, by putting a liquid sample containing one or more species of analytes in contact to a reagent including one or more species of marker-labeled ligands and one or more species of nucleic acid-labeled ligands, to generate one or more species of complexes, developing the generated one or more species of complexes through capillary phenomenon in developing element 11 in a sheet form, capturing the complexes through complementary nucleic acid binding onto anti-bond elements consisting of nucleic acids on detection zones 15, 16 and 17 formed depending on each of one or more species of nucleic acids

immobilized on the detection zone 14, thereby capturing a complex depending on the analyte species, through the complementary binding between the anti-bond element and the bond element, to form an independent band and to assay the amount or the presence on the detection part.

This statement should not be construed as a representation that more material information does not exist or that an exhaustive search of the relevant art has been made. Nor does this statement constitute an admission by Applicants or Applicants' agent that the information provided herein is necessarily prior art to Applicants' invention. Moreover, Applicants reserve the right to establish the patentability of the claimed invention over any of the listed documents should they be applied there-against as references. Please charge any deficiency or credit any overpayment to Deposit Account No. 50-0639.

Respectfully submitted,

O'MELVENY & MYERS LLP

Dated: March 26, 2003

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IR1:1041655.1



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PATENT TRADEMARK OFFICE

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LIST OF PATENTS AND OTHER ITEMS FOR APPLICATION
INFORMATION DISCLOSURE STATEMENT612,406-022
(formerly 271/145)

09/509,051

(Use several sheets if necessary)

APPLICANT:

Christian Miculka et al.

FILING DATE:

September 21, 1997

GROUP:

1641

U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB CLASS | FILING DATE |
|---------------------|----|-----------------|---------|-------------------|-------|--------------|----------------|
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|---------------------|----|-----------------|---------|---------------|-------|--------------|-----------------------|
| | AJ | 19516179 C1 | 11/1996 | Germany | | | |
| | AK | 4216696 C2 | 10/1993 | Germany | | | |
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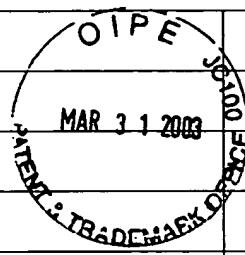
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| FORM PTO-1449 LIST OF PATENTS AND OTHER ITEMS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary) | ATTY. DOCKET NO. 612,406-022 (formerly 271/145) | SERIAL NO. 09/509,051 |
| | APPLICANT: Christian Miculka et al. | |
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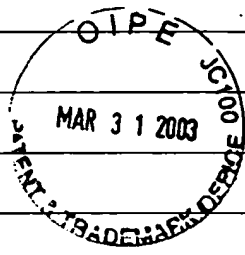


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